DOCUMENT RESUME

ED 211 281 EC C13 085

AUTHOR Williams, R. Gary; Knop, Edward
TITLE Dimensionality of Community Satisfaction.
SPONS AGENCY Colorado State Univ., Ft. Collins. Agricultural Experiment Station.
PUB DATE 20 Aug 81
NOTE 24p.; Paper presented at the Annual Meeting of the Rural Sociological Society (Guelph, Ontario, Canada, August 20-23, 1981).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Community Characteristics; Community Leaders; *Community Satisfaction; Community Services; Factor Analysis; Population Growth; *Population Trends; *Quality of Life; *Rural Areas; Rural Development; Rural Environment; *Social Indicators
IDENTIFIERS *Colorado

ABSTRACT

Using factor analysis (both principal factor solutions and rotated factor solutions) to search for underlying statistical commonality among 12 indicators of community satisfaction in 6 Colorado communities, the research explores various dimensions of community satisfaction that may be important across different communities. The communities under study represent different types of communities as well as different rates of growth: Aspen is a rapidly growing ski-recreational community; Evergreen is a rapidly growing exurban community; both Yuma and Burlington are rapidly growing agricultural communities; Craig is an agricultural primary industry community with slow growth; and Del Norte is an agricultural community that is losing population. Dimensions identified as important are private services, public services, environmental milieu, political processes, community cohesion, interaction and exchange, local institutions, locality as gratification, power, stratification, differentiation, and interdependency. Some generalizations can be made across most of the communities studied: a grouping of indicators around "good local leaders" indicates orientation to democratic community processes, and groupings around the categories of interpersonal environment and services may be cross-community indicators. Results are inconclusive, thus reliance on dimensions identified by previous researchers and relevant to different theoretical schools are recommended. (NEC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED211281

OCT 1981
ERIC/CRESS
RECEIVED

Dimensionality of Community Satisfaction

R. Gary Williams
Wyoming Research Corporation
Laramie, Wyoming
Edward Knop
Colorado State University
Fort Collins, Colorado

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
R. Gary Williams
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

RC 013085

Paper presented at the annual meeting of the Rural Sociological Society at the University of Guelph, Guelph, Ontario, August 20-23, 1981.

Research supported by Colorado State University Experiment Station W118 Regional Migration Project.

ABSTRACT

DIMENSIONALITY OF COMMUNITY SATISFACTION

This paper seeks to explore the various dimensions of community satisfaction that may be important across different communities. Although community satisfaction studies have been conducted in sociology since the mid 1940s, only a handful of researchers have dealt with the problem of multidimensionality of community.

This paper uses factor analysis (both principal factor solutions and rotated factor solutions) to search for underlying statistical commonality among twelve indicators of community satisfaction in six Colorado communities.

The six Colorado communities under study represent different types of communities as well as different rates of growth. Aspen represents a rapidly growing ski-recreational community, Evergreen represents a rapidly growing exurban community. Both Yuma and Burlington represent rapidly growing agricultural communities. Craig represents an agricultural/primary industry community with slow growth and Del Norte represents an agricultural community that is losing population.

It is hypothesized that several distinct factors will emerge from the data. It is recognized that because of the distinct types of communities and varying growth characteristics, different community specific factors may emerge. This paper is concerned only with the community general factors that are generalizable to other communities. The findings are discussed in light of past findings in the area. Also the different dimensions of community will be discussed in reference to different theoretical schools of thought to ensure that no important dimension of community is omitted.

Dimensionality of Community Satisfaction

The concept of community satisfaction has been in sociology since Vernon Davies article appeared in 1945. Research in the area, however, has been slow to evolve. It was not until Johnson and Knop (1970) explored the multiple dimensions of community that attention was given to the problem of multi-dimensionality. Johnson and Knop, using satisfaction indicators based on Davies (1945) and Jesser (1967) illustrated this multi-dimensional aspect of community. Using factor analysis, Johnson and Knop found urban areas offered employment, medical, and commercial services; on the other hand, rural areas offered attributes that centered on the interpersonal aspects of community.

Rossi (1972) in discussing the problems with community research recognizes the importance of different dimensions of community. He suggests five main dimensions on which community research should be carried out. They are: orientation to localities as collectivities, interaction and exchange, relationship to central local institutions, housing and locality as gratification.

Although Marans and Rogers (1975) do not specifically discuss dimensions of community, they discuss the different levels at which community satisfaction research should be carried out. These different levels range from the immediate living environment to the community living environment.

Rojek (1975), working from Johnson and Knop's (1970) approach, utilizes factor analysis to look at the different dimensions of community services. Among the dimensions of services were public services, commercial services and educational services.

This paper will seek to determine the underlying dimensions of community satisfaction that might be consistent across communities. Hopefully, by looking

for statistical commonalities among indicators of community satisfaction across communities, dimensions can be derived that will be useful in future community satisfaction research.

Sampling Procedure and Data Collection

The six communities used for analysis in this paper comprise two different data sets. Craig, Colorado; Aspen, Colorado; and Del Norte, Colorado formed Data Set I. Burlington, Colorado; Yuma, Colorado; and Evergreen, Colorado comprised Data Set II. The sampling and data collection procedures are described below for each data set.

Data Set I. Sampling for Craig, Aspen, and Del Norte was carried out using a systematic random sampling technique. The sampling list was compiled using utility listings as cross checked against property tax records. A systematic random sample was drawn from the list by selecting a random number to start with then selecting every Nth name on the list, beginning with the random number. Such a sampling technique is both efficient and representative as long as there are no underlying commonalities in the sampling list.

Questionnaires were mailed to approximately fifteen percent of the households in each community. The initial mailing was followed up by two additional mailings. The final response rate was approximately seventy percent for Craig, Aspen, and Del Norte. The sample size for each community was: Craig, 121 respondents; Aspen, 74 respondents; and Del Norte, 71 respondents. Data were collected in 1971.

Data Set II. Sampling for Burlington, Yuma and Evergreen was also carried out using a systematic random sampling technique. The sampling list was compiled using the 1977 telephone directory for each of the above communities. Residents with unlisted numbers, without telephones, or those who arrived in the area since the directory was published were not included in the study carried out in January of 1978.

The same mailing technique was used in Data Set II as in the first Data set. With follow-up mailings, the effective response rate was approximately 49 percent. The sample sizes for the communities were: Burlington, 96 respondents; Yuma, 105 respondents; and Evergreen, 106 respondents.

Indicators of Community Satisfaction

Similar research instruments were used with both data sets. The first step in the analysis process was to identify indicators of community satisfaction that were present in both data sets. These indicators took the form of statements about various aspects of community life with which a respondent was to mark agree, disagree, or not sure. The following list represents the twelve consistent indicators of community satisfaction across all three data sets:

1. Local leaders do a good job of handling community problems.
2. This is a wholesome place for raising children.
3. When community decisions are made, only the opinions of a few seem to count.
4. People here are willing to help you when you need it.
5. The people of this community have a feeling of unity.
6. People who work hard for the community do not get enough praise.
7. People here tend to dislike new ideas.
8. Good medical care is available in this town.
9. It is difficult to get things repaired here.
10. Decent jobs are getting harder to find in this town.
11. Recreational and entertainment opportunities are good here.
12. Local government does a good job providing and maintaining services.

Statistical Analysis

Factor analysis was used as a statistical technique to reduce the twelve indicators of satisfaction into fewer factors that represent different aspects of community. Since there is no one measure of satisfaction with community, this technique makes scaling of the dependent variable possible. Factor analysis, like all statistical techniques, allows for the reduction of data. It is a technique that is designed to determine underlying "factors" among a number of variables (Kerlinger 1973). Factor analysis is based on the intercorrelation among variables to be factored. A total pooled variance is thus calculated for all the variables to be factored, and then factor scores, "weights," are assigned to each variable in accordance with its ability to account for the total pooled variance. By assigning a cutoff point for factor weights, the researcher can determine which variables belong together in a given factor. Used in this way, factor analysis is an excellent exploratory technique helpful in determining the different dimensions underlying a given group of indicators.

The Statistical Package for the Social Sciences (SPSS) has a computer program for performing factor analysis. Although there are several options available in the program, Nie et al. (1975) indicate that the principle factor solution with "verimax" rotation is the most widely used in the social sciences and the program seeks this type of solution automatically. Thurstone (1947) has also made a convincing argument for the use of rotation in factor analysis. Thurstone argues that rotating to a final factor analytic solution is the only way to properly interpret factors.

Factor analysis using the principal factor method with verimax rotation (orthogonal solution) was used on the twelve indicators of community satisfaction on both data sets. An inclusion level of 0.35 for the factor

coefficient was artibrarily chosen as the point for inclusion of a given indicator into a particular factor.

Results

Tables 1 through 6 represent the results of principle factor analysis on indicators of community satisfaction for all nine communities. The principle factor solutions loaded many of the same indicators into different factors yielding what Nie (1975) calls "factorially complex" solutions. Not only are the solutions "factorially complex" but there is little consistency from one data set to another in terms of which indicators seemed to group together.

Following the principle factor solution, the "verimax" rotation procedure was used to try and simplify the solution. Tables 7 through 12 report the results of the rotated factor solutions on indicators of community satisfaction. The results of the rotated factor solutions are also difficult to interpret because of the complexity of the solutions. Basically, it appears the results of both the principal and the rotated factor analyses are inconclusive.

There are some generalizations that can be made across most of the communities studied. First there appears to be a grouping of indicators around the dominate indicator "good local leaders." Indicators of "only the opinions of a few seem to count," "the people of this community have a feeling of unity," or "high community spirit" seem to group with "good local leaders." Thus, these indicators taken together seem to indicate a group orientation or orientation to democratic community processes. Other general groupings appear to be around such conceptual categories as interpersonal environment. In this instance indicators of "wholesomeness," "helpfulness" and "new ideas" seem to group together in several of the communities studied, although they appear in different constellations in each instance. The third general category that is faintly visible in Tables 7 through 12 is "services." "Local government

services" and "medical services" appear either together or separately in several instances and generally with other variables. However, there is some slight indication that different types of services could form a separate category of community satisfaction.

It should be reiterated that the results of both the principal and rotated factor solutions were inconclusive. The generalizations made represent only the most general sorts of statements about the factors that emerged from the data.

Discussion and Conclusions

The inconclusiveness of the results could be due to two primary factors. First, it is possible that there were too few indicators of community satisfaction. Second, it is possible that there are no common dimensions of community across the different types of communities studied. The authors of this paper feel that the lack of common dimensions emerging from the data represent a methodological problem and not necessarily the lack of such dimensions in reality. Therefore, it is suggested that future research of this type be carried out with a larger number of indicators to increase the chance of finding common dimensions of community satisfaction from community to community.

Until such research into the dimensions of community is carried out, sociologists should be careful to ensure the adequate coverage of different dimensions of community in doing community satisfaction research. There are two approaches that can be taken in this regard. First, one can rely on past research and discussion concerning the dimensions of community. Johnson and Knop (1970) identify shopping, medical facilities, teacher ability, employment opportunities and entertainment and recreational opportunities as important

dimensions for urban areas. They report local democratic processes and the general geographic milieu as being more important to rural areas.

In a more general vein, Rossi (1972) has identified five dimensions on which community satisfaction research should be carried out. They are: orientation to localities as collectivities, interaction and exchange, relationship to central local institutions, housing, and locality as gratification.

Rojek (1975) identifies four main dimensions of community services that should be considered. There are public services, commercial services, educational services and medical services.

Utilizing dimensions of community as suggested by the above authors should help researchers in the field from ignoring some important aspect of community. However, a general overview of the different theoretical approaches in sociology show some areas of community that have been overlooked by the above mentioned authors.

Conflict theory would focus attention of the researcher on the distribution of power, system of stratification and political processes. Although Johnson and Knop (1970) identified democratic political processes, stratification and power were ignored.

Interaction theory would direct the researchers attention to the interaction of individuals that comprise a community, an area that Rossi (1972) seems to have covered well.

Structural-functional theory would focus researchers attention to the structural aspects of community such as the major institutions, and the differentiation/interdependency of the community system. Johnson and Knop (1970) and Rojek (1975) and Rossi (1977) identify institutions as important. None of the above authors look at differentiation and interdependency.

Summary

This paper has sought to discover underlying dimensions of community by factor analyzing indicators representing different aspects of community. Results in this regard are inconclusive, thus reliance on dimensions identified by previous researchers and dimensions relevant to different theoretical schools have been recommended. Such an approach will help guard against omission of any important dimension of community in future research. Dimensions identified as important were: private services, public services, environmental milieu, political processes, community cohesion, interaction and exchange, local institutions, locality as gratification, power, stratification, differentiation and interdependency.

These dimensions should best be used as a checklist to ensure adequate coverage of the different aspects of this amorphous entity we call community.

Table 1
Principal Factor Solution on Indicators
of Community Satisfaction for Craig, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.66
	Wholesome Place for Raising Children	.53
	Only Opinions of a Few Count	.62
	People Here are Willing to Help	.53
	High Community Spirit	.57
	People Too Strict and Straight-Laced	.42
	People Dislake Progress	.53
	It is Difficult to Get Things Repaired	.45
	Decent Jobs are Hard to Find	.43
	Recreation and Entertainment are Good	.49
	Local Government Services are Good	.64
2	People Here are Willing to Help	.38
	Local Government Services are Good	-.42
3	Local Government Services are Good	.44
4	Decent Jobs are Hard to Find	.40

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 2
Principal Factor Solution on Indicators
of Community Satisfaction for Aspen, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.58
	Only Opinions of a Few Count	.57
	People Here Are Willing to Help	.62
	High Community Spirit	.56
	People Too Strict and Straight-Laced	.52
	People Dislike Progress	.76
	Good Medical Care is Available	.41
	Decent Jobs Are Hard to Find	.52
	Recreation and Entertainment Are Good	.36
	Local Government Services Are Good	.46
2	People Dislike Progress	-.61
	Local Government Services Are Good	.48
3	People Here Are Willing to Help	-.54
	Local Government Services Are Good	.35
4	People Are Too Strict and Straight-Laced	.54

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 3
Principal Factor Solution on Indicators
of Community Satisfaction for Del Lorte, Colorado*

Factor	Indicators	Loading
1	Good Local Leaders	.69
	Wholesome Place for Raising Children	.57
	Only Opinions of a Few Count	.35
	People Here are Willing to Help	.63
	Recreation and Entertainment are Good	.59
	Local Government Services are Good	.51
2	Wholesome Place for Raising Children	-.61
	People Dislike Progress	.48
	Recreation and Entertainment are Good	.68
3	Good Local Leaders	-.61
	Work for the Community is Recognized	.38
	Decent Jobs are Hard to Find	.44
	Recreation and Entertainment are Good	.39
4	People to Strict and Straight-Laced	.37
	People Dislike Progress	.54

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 4
Principal Factor Solution on Indicators
of Community Satisfaction for Burlington, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.72
	Wholesome Place for Raising Children	.36
	Only Opinions of a Few Count	-.53
	People Have Feeling of Unity	.53
	Recreation and Entertainment are Good	.41
	Local Government Services are Good	.56
2	Good Local Leaders	.49
	Wholesome Place for Raising Children	-.45
	People Here are Willing to Help	-.44
	People Dislike New Ideas	.43
3	Good Local Leaders	.38
	Work for the Community is Recognized	.42
	Decent Jobs are Hard to Find	.52
4	Good Medical Care is Available	.48

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 5
Principal Factor Solution on Indicators
of Community Satisfaction for Yuma, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.76
	Only Opinions of a Few Count	-.71
	People Have Feeling of Unity	.44
	People Dislike New Ideas	-.58
	Decent Jobs are Hard to Find	-.48
	Recreation and Entertainment are Good	.46
	Local Government Services are Good	.41
2	Wholesome Place for Raising Children	.40
	People Here are Willing to Help	.60
3	It is Difficult to Get Things Repaired	.46
	Recreation and Entertainment are Good	.44
4	Work for the Community is Recognized	.39

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 6
Principal Factor Solution on Indicators
of Community Satisfaction for Evergreen, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.71
	Wholesome Place for Raising Children	.68
	Only Opinions of a Few Count	-.55
	People Here are Willing to Help	.40
	People Have Feeling of Unity	.68
	People Dislike New Ideas	-.54
	Good Medical Care is Available	.56
	It is Difficult to Get Things Repaired	-.48
	People Dislike New Ideas	.53
	Local Government Services are Good	.82
2	Wholesome Place for Raising Children	.45
	Good Medical Care is Available	.45
	Local Government Services are Good	-.36
3	People Have Feeling of Unity	.36
	Recreation and Entertainment are Good	-.39
4	People Here are Willing to Help	-.37
	Local Government Services are Good	.36

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 7
Rotated Factor Solution on Indicators
of Community Satisfaction for Craig, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.51
	Wholesome Place for Raising Children	.48
	Only Opinions of a Few Count	.38
	People Here are Willing to Help	.62
	High Community Spirit	.66
	Recreation and Entertainment are Good	.41
2	Good Local Leaders	.41
	Only Opinions of a Few Count	.51
	People Too Strict and Straight-Laced	.35
	People Dislike Progress	.57
	It is Difficult to Get Things Repaired	.40
	Decent Jobs are Hard to Find	.59
3	Local Government Services are Good	.77
4	Good Medical Care is Available	.56

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 8
Rotated Factor Solution on Indicators
of Community Satisfaction for Aspen, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.36
	Only Opinions of a Few Count	.43
	High Community Spirit	.44
	People Dislike Progress	.95
	Decent Jobs are Hard to Find	.38
2	Good Local Leaders	.58
	Only Opinions of a Few Count	.39
	Good Medical Care is Available	.41
	Local Government Services are Good	.74
3	People Here are Willing to Help	.85
	High Community Spirit	.36
4	People Too Strict And Straight-Laced	.72

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 9
Rotated Factor Solution on Indicators
of Community Satisfaction for Del Norte, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.92
	Wholesome Place for Raising CHildren	.52
	People Here are Willing to Help	.45
	Local Government Services are Good	.40
2	Recreation and Entertainment are Good	.93
	Local Government Services are Good	.53
3	Wholesome Place for Raising Children	.54
	Only Opinions of a Few Count	.37
	People Here are Willing to Help	.50
	Work for the Community is Recognized	.40
	Decent Jobs are Hard to Find	.62
4	Wholesome Place for Raising Children	-.38
	People Too Strict and Straight-Laced	.35
	People Dislike Progress	.71

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 10
Rotated Factor Solution on Indicators
of Community Satisfaction for Burlington, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.90
	Only Opinions of a Few Count	-.37
	People Have Feeling of Unity	.51
	Local Government Services are Good	.41
2	Wholesome Place for Raising Children	.47
	Only Opinions of a Few Count	-.45
	People Here are Willing to Help	.52
	People Dislike New Ideas	-.49
	Recreation and Entertainment are Good	.44
3	Work for the Community is Recognized	.48
	Decent Jobs are Hard to Find	.56
	Local Government Services are Good	-.44
4	Good Medical Care is Available	.60

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 11
Rotated Factor Solution on Indicators
of Community Satisfaction for Yuma, Colorado*

Factor	Indicator	Loading
1	Wholesome Place for Raising Children	.51
	Only Opinions of a Few Count	-.37
	People Here are Willing to Help	.69
	People Have Feeling of Unity	.45
2	People Dislike New Ideas	-.35
	Good Medical Care is Available	.37
	Recreation and Entertainment are Good	.72
3	Good Local Leaders	-.62
	Work for the Community is Recognized	.41
	People Dislike New Ideas	.46
	Local Government Services are Good	-.35
4	Only Opinions of a Few Count	.58
	It is Difficult to Get Things Repaired	.69
	Decent Jobs are Hard to Find	.35

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

Table 12
Rotated Factor Solution on Indicators
of Community Satisfaction for Evergreen, Colorado*

Factor	Indicator	Loading
1	Good Local Leaders	.65
	People Have Feeling of Unity	.48
	Local Government Services are Good	.88
2	Only Opinions of a Few Count	-.61
	People Dislike New Ideas	-.49
	Decent Jobs are Difficult to Find	-.36
	Recreation and Entertainment are Good	.62
	Local Government Services are Good	.35
3	Wholesome Place for Raising Children	.74
	Good Medical Care is Available	.66
	It is Difficult to Get Things Repaired	-.46
4	People Here are Willing to Help	.54
	People Have Feeling of Unity	.61

*Factor loading cutoff point was .35 for inclusion of a given indicator into a particular factor.

LITERATURE CITED

Davies, Vernon.
1945. "Development of a Scale to Rate Attitude of Community Satisfaction." Rural Sociology, Vol. 10 (Sept.), p. 246-255.

Jesser, Clinton J.
1967. "Community Satisfaction Patterns of Professionals in Rural Areas." Rural Sociology, Vol. 32, No. 1, p. 56-69.

Kerlinger, Fred N.
1973. Foundations of Behavioral Research, 2nd ed. New York: Holt, Rinehart and Winston, Inc.

Knop, Edward and Ronald L. Johnson.
1970. "Rural-Urban Differences in Community Satisfaction," Rural Sociology Vol. 35, p. 544-548.

Marans, Robert Ward and Willard Rodgers.
1975. "Toward an Understanding of Community Satisfaction," in Metropolitan America in Contemporary Perspective. Amos Hawley and Vincent P. Rock (eds.), New York: John Wiley and Sons.

Nie, Norman, C. Hadlai, Jean Hull, G. Jenkins, Karin Steinbrenner, and Dale H. Bent.
1975. SPSS: Statistical Package for the Social Scineces, 2nd ed. New York: McGraw-Hill Company

Rojek, Dean G., Frank Clements and Gene Summers.
1975. "Community Satisfaction: A Study of Contentment with Local Services." Rural Sociology, Vol. 40, No. 2, p. 177-192.

Rossi, Peter.
1972. "Community Social Indicators," in The Human Meaning of Social Change. Angus Campbell and Phillip Converse (eds.), New York, Russell Sage Foundation.

Thurstone, L.
1947. Multiple Factor Analysis, Chicago: The University of Chicago Press.